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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,538	11/26/2001	Gunter Igel	Mic.6287	3411

7590 05/13/2003

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EXAMINER

BENSON, WALTER

ART UNIT PAPER NUMBER

2858

DATE MAILED: 05/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/868,538

Applicant(s)
Igel et al.

Examiner
Walter Benson

Art Unit
2858



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 26, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6 6) ☐ Other:

Art Unit: 2858

DETAILED ACTION

1. Claims 1-14 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, and 8-14 rejected under 35 U.S.C. 102(b) as being anticipated by Okada (US Patent No. 5,639,973 and Okada hereinafter).

4. As to claim 1, Okada discloses a capacitive sensor with a first electrode and a second electrode, which are spaced apart from one another and which form a measurement capacitance, such that the first electrode is situated on a first substrate body and the second electrode on a second substrate body, and the second substrate body is designed as a deformable membrane in the vicinity of the second electrode (Fig. 1; col. 2, lines 4-26);

Art Unit: 2858

a magnetic body is disposed in the vicinity of the second electrode and the membrane (Figs. 4 and 5; col. 5, lines 49-54).

which magnetic body is connected to the membrane and to the second electrode in such a way that a change of position of the magnetic body, induced by an external magnetic field, will cause a change of position of the second electrode via the membrane, resulting in a capacitance change (Figs. 11, 17 and 42; col. 2, lines 27-31).

5. As to claim 2, Okada discloses a capacitive sensor where the second electrode and the magnetic body are situated on opposite sides of the membrane (Figs. 1,4, and 5; col. 4, lines 46-53).

6. As to claim 3, Okada discloses a capacitive sensor where the magnetic body is formed as a thin layer (Fig. 42; col. 27, lines 43-62).

7. As to claim 4, Okada discloses a capacitive sensor where the magnetic body contains ferromagnetic material (col. 20, lines 1-2).

8. As to claim 5, Okada discloses a capacitive sensor comprising:

an electronic arrangement for processing the measurement signals that is integrated into at least one of the substrate bodies (col. 25, lines 35-37).

Art Unit: 2858

9. As to claim 6, Okada discloses a capacitive sensor where the electronic arrangement for processing the measurement signals is situated in the first substrate body below the electrode affixed there (Figs. 17 and 27; col. 25, lines 29-35).

10. As to claim 8, Okada discloses a capacitive sensor where the electronic arrangement for processing the measurement signals has elements to amplify the measurement signal (Fig. 17; col.15, lines 63-67).

11. As to claim 9, Okada discloses a capacitive sensor where the electronic arrangement for processing the measurement signals has elements for applying a voltage signal across the first and second electrodes (col. 4, lines 54-57).

12. As to claims 10 and 11, Okada discloses a capacitive sensor where at least one of the electrodes is formed as at least one conductor track, which is part of the electronic arrangement for processing the measurement signals (col. 25, lines 1-13 and 29-37).

13. As to claim 12, Okada discloses a capacitive sensor where the first electrode is configured and arranged with respect to the second electrode to provide a space-resolving measurement (col. 20, lines 6-18).

Art Unit: 2858

14. As to claim 13, Okada discloses a capacitive sensor where the first electrode has mutually parallel strip-shaped elements (Fig. 11; col. 11, lines 25-31).

15. As to claim 14, Okada discloses a capacitive sensor where the electronic arrangement for processing the measurement signals processes the measurement signals to provide the space-resolving measurement (col. 20, lines 33-38).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okada..

18. As to claim 7, Okada discloses the integration of the evaluation circuit on the first substrate body (Figs. 17, and 27: col. 25, lines 29-37) which differs from the evaluation circuit as claimed which is disposed in parts , on the first substrate and second substrate body. However, it would have obvious to one having ordinary skill in the art at the time the invention was made to

Art Unit: 2858

divide the evaluation circuit of Okada, likewise on two substrate bodies to accomplish the technical task of finding a compact structure for the sensor, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Prior Art Made of Record

19. A. Mansky et al. (US Patent No. 6,535,822 B2) discloses a sensor array disposed on a substrate;

B. Okada (US Patent No. 5,811,693) discloses an electrode layer formed on the upper surface of a first substrate, and a process for removing the substrate is carried out in order to allow the substrate to have flexibility.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter Benson whose telephone number is (703) 306-4525. The examiner

Art Unit: 2858

can normally be reached on Monday to Thursday and alternate Fridays from 6:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le, can be reached on (703) 308-0750. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9318); Before-Final or (703) 872-9319; After-Final.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

Walter Benson *WB*
Patent Examiner

May 12, 2003


N. Le
Supervisory Patent Examiner
Technology Center 2800